

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for visualization of a 3-dimensional (3-D) image, the method comprising acts of:

converting a 3-D scene model into a plurality of 3-D scene points;

providing at least a portion of the plurality of 3-D scene points to a 3-D display plane comprising 3-D pixels that are directionally modulated;

calculating at ~~each of~~ the 3-D pixels a contribution of light from the 3-D pixel to generate at least in part a scene point of the plurality of 3-D scene points; and

performing at least one of emitting and transmitting the light by each of the 3-D pixels that is calculated to contribute to the scene point, wherein the contribution of light of a 3-D pixel to a certain 3-D scene point is calculated within one 3-D pixel of a row or column prior to the provision of the 3-D scene points from the

one 3-D pixel to remaining 3-D pixels of the row or column,
respectively such that one of the pixels of the row or column acts
as a master pixel for the row or column, while other pixels of the
row or column act as slave pixels.

2. (Currently amended) The method according to claim 1, wherein light is emitted and/or transmitted by 2-D pixels comprised within ~~said the~~ 3-D pixels, each 2-D pixel directing light into a different direction contributing light to a scene point of ~~said the~~ 3-D scene model.

3. (Currently amended) The method according to claim 1, wherein ~~said the~~ 3-D scene points are provided sequentially, or in parallel, to ~~said the~~ 3-D pixels.

4. (Currently amended) The method according to claim 1, wherein the calculation of the contribution of light of a 3-D pixel to a certain 3-D scene point is made previous to the provision of ~~said the~~ 3-D scene points to ~~said the~~ 3-D pixels.

5. (Canceled)

6. (Canceled)

7. (Currently amended) The method according to claim 1, wherein ~~each a~~ 3-D pixel alters the co-ordinates of a 3-D scene point prior to putting out ~~said the~~ altered 3-D scene point from ~~each the~~ 3-D pixel to at least one neighboring 3-D pixel.

8. (Currently amended) The method according to claim 1, wherein if more than one 3-D scene point needs the contribution of light from one 3-D pixel, the depth information of ~~said the~~ 3-D scene point is decisive.

9. (Previously presented) The method according to claim 1, wherein 2-D pixels of the 3-D display plane transmit and/or emit light only within one plane.

10. (Previously presented) The method according to claim 1, wherein color is incorporated by spatial or temporal multiplexing

within each 3-D pixel.

11. (Currently amended) A 3-D display device, comprising:

a 3-D display plane with 3-D pixels, said 3-D pixels comprise an input port and an output port for receiving and putting out 3-D scene points of a 3-D scene, each of said at least a portion of the 3-D pixels comprise a control unit located at each of the portion of 3-D pixels for calculating their own contribution to the visualization of a 3-D scene point representing said the 3-D scene and for calculating a contribution to the visualization of a 3-D scene point representing the 3-D scene for each of a row or column to which a given 3-D pixel of the portion of 3-D pixels is a member, such that the given 3-D pixel of a row or a column acts as a master pixel for the row or column, while other pixels of the row or column act as slave pixels.

12. (Currently amended) The 3-D display device according to claim 11, wherein said the 3-D pixels are interconnected for parallel and serial transmission of 3-D scene points from a given 3-D pixel to neighboring 3-D pixels.

13. (Currently amended) The 3-D display device according to claim 11, wherein ~~said the~~ 3-D pixels comprise a spatial light modulator with a matrix of 2-D pixels.

14. (Currently amended) The 3-D display device according to claim 13, wherein ~~said the~~ 3-D pixels comprise a point light source, providing ~~said the~~ 2-D pixel with light.

15. (Currently amended) The 3-D display device according to claim 13, wherein ~~said the~~ 3-D pixels comprise registers for storing a value determining which ones of ~~said the~~ 2-D pixels within ~~said the~~ 3-D pixel contribute light to a 3-D scene point.

16. (Previously presented) The method of claim 1, wherein the calculating of the contribution comprises calculating whether a current 3-D scene point is closer to a viewer than a past 3-D scene point.

17. (Previously presented) The 3-D display device of claim 11,

wherein the control unit calculates whether a current 3-D scene point is closer to a viewer than a past 3-D scene point.

18. (New) The method of claim 1, wherein each 3-D scene point has co-ordinates x, z, y and a luminance value.

19. (New) A method for visualization of a 3-dimensional (3-D) image, the method comprising acts of:

converting a 3-D scene model into a plurality of 3-D scene points;

providing at least a portion of the plurality of 3-D scene points to a 3-D display plane comprising 3-D pixels that are directionally modulated;

calculating at each of the 3-D pixels a contribution of light from the 3-D pixel to generate at least in part a scene point of the plurality of 3-D scene points; and

performing at least one of emitting and transmitting the light by each of the 3-D pixels that is calculated to contribute to the scene point, wherein a 3-D pixel alters the co-ordinates of a 3-D scene point prior to putting out the altered 3-D scene point from

the 3-D pixel to at least one neighboring 3-D pixel and wherein for each 3-D pixel that receives an altered 3-D scene point, the act of calculating comprises an act of calculating the contribution of light from the 3-D pixel based on the altered 3-D scene point.

20. (New) The method of claim 18, wherein the altered 3-D scene point is altered to account for the relative difference in position between two 3-D pixels.

21. (New) The method of claim 18, wherein the act of calculating is performed without a use of global position information.